



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BOOK-REVIEWS.

A Manual of the Steam-Engine. Part II: Design, Construction, and Operation. By R. H. THURSTON. New York, Wiley. 8°. \$7.50.

THE first part of the "Manual of the Steam-Engine" we have already noticed. Its purpose was twofold: (1) the development of the mathematical theory from the simple form applicable to the Carnot engine to a form that would assist the mechanical engineer in following the flow of energy into the engine of practice and its conversion into power or loss in many ways; (2) the application of the principles of thermo-dynamics and the data obtained by experiment to the computation of the quantities of heat, steam, and fuel required for the production of power in a given engine, and the determination of the proportions of engine and distribution of steam that would give the best result.

But so much has been gained by experience, simply, in the design and construction of engines, aside from the progress based on theoretical considerations alone, that the author has preferred

Part II. of his Manual to cover the more usual methods of design, construction, and operation of the steam-engine. Part I. contains the scholastic foundation; Part II., the practitioner's super-structure.

The two volumes already issued, it is proposed by the author, are to be followed by a third, which shall contain working drawings of the latest and best modern machinery of this class. The third part will, therefore, provide an atlas of such drawings, with concise accompanying text.

After treating the portions of his subject which are recognized as belonging to mechanical engineering, our author, in the last chapter, treats of the financial element in the theory and practice of steam-engine construction. This is something quite novel, and Professor Thurston looks to his friends for such criticism as will lead to the further development of this branch of the subject. Designing for a minimum cost is a matter which every experienced member of the profession has constantly been compelled to consider; but scientific methods of computation of minima rarely have been known or practised.

Exhaustion

Horsford's Acid Phosphate.

A wonderful remedy, of the highest value in mental and nervous exhaustion.

Overworked men and women, the nervous, weak and debilitated, will find in the Acid Phosphate a most agreeable, grateful and harmless stimulant, giving renewed strength and vigor to the entire system.

Dr. Edwin F. Vose, Portland, Me., says: "I have used it in my own case when suffering from nervous exhaustion, with gratifying results. I have prescribed it for many of the various forms of nervous debility, and it has never failed to do good."

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

CAUTION.—Be sure the word "Horsford's" is on the label. All others are spurious. Never sold in bulk.

MINERALOGY.

Course of Mineralogy for Young People.

Conducted by correspondence; minerals and books furnished.

Collection and book, "First Grade," one dollar; postage, 25 cents. Send for circulars to

GUSTAVE GUTTENBERG,
Central High School, Pittsburgh, Pa.

GEM OPALS. Cut ready for setting. Having purchased a large lot at the Mexican locality, we are offering them at about one-fifth jeweler's prices; 40c., \$1, \$1.50, \$2, \$3. This is a rare opportunity to secure a fine gem very cheap. 100 pp. Mineral Catalogue 15c., in cloth 25c., Supplement 2c. GEO. L. ENGLISH & CO., Mineralogists, 733 and 735 Broadway, New York City.

20 GEMSTONES FREE as a premium with THE GREAT DIVIDE.

These Gemstones are cut and polished ready for jewelry mounting, and are given free to each new subscriber sending \$1, price of yearly subscription.

Address **THE GREAT DIVIDE,**
1516 Arapahoe St., Denver, Colo.

ESTERBROOK'S STEEL PENS.

OF SUPERIOR AND STANDARD QUALITY.

Leading Nos.: 048, 14, 130, 135, 239, 333

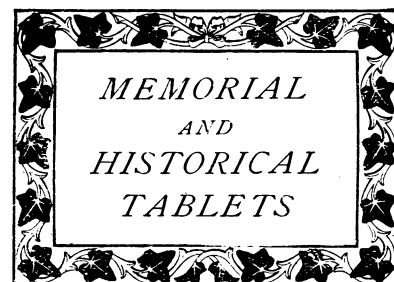
For Sale by all Stationers.

THE ESTERBROOK STEEL PEN CO.,
Works: Camden, N. J. 26 John St., New York.



PATENTS

For INVENTORS. 40-page BOOK FREE. Address W. T. Fitzgerald, Attorney at Law, Washington, D. C.



TABLETS EXECUTED IN METAL,
OR MARBLE AND MOSAIC.
PHOTOGRAPHS ON REQUEST.
ILLUSTRATED HANDBOOK FREE.

J. & R. Lamb

59 Carmine St., New York.



ESTABLISHED 1858.
H. H. UPHAM & CO.,
MEMORIAL TABLETS
In Brass and Bronze,
54 So. Fifth Ave., near Bleecker St., N. Y.



DO YOU INTEND TO BUILD?

If you intend to build, it will be a mistake not to send for "**SENSIBLE LOW-COST HOUSES**," now arranged in **three volumes**. In them you will find perspective views, floor plans, descriptions, and estimates of cost for **105 tasteful, new designs for houses**. They also give prices for **complete Working Plans, Details, and Specifications**, which enable you to build **without delays, mistakes or quarrels** with your builder, and which **any one can understand**. Vol. I. contains 35 copyrighted designs of houses, costing between \$500 and \$1900. Vol. II. contains 35 copyrighted designs, \$1900 to \$3000. Vol. III. contains 35 copyrighted designs, \$3000 to \$9000. Price, by mail, **\$1.00 each, or \$3.00 for the set**.

"**COLONIAL HOUSES**," a volume showing Perspectives and Floor Plans of houses arranged in the inimitable style of the Colonial Architecture, and having all modern arrangements for comfort. Price, **\$2.00**.

"**PICTURESQUE HOUSES FOR FOREST AND SHORE**":—This show Perspectives and Floor Plans of new designs for Summer Cottages, which are romantic convenient, and cheap. Price **\$1.00**, by mail.

N. D. C. HODGES, 874 Broadway, New York